AMENDMENTS TO THE SPECIFICATION:

On page 1, line 4, prior to TECHNICAL FIELD OF THE INVENTION, please insert the following:

This application claims priority as a continuation of U.S. Patent Application Serial No. 10/060,739 filed January 30, 2002.

Please replace the paragraph bridging page 4, line 20 through page 5, line 7 of the specification with the following:

According to a still further embodiment of the present invention, the comparator comprises: 1) an operational amplifier having an inverting input coupled to the storage capacitor; 2) a first resistor (R1) having a first terminal coupled to ~~ground~~ an output of the operational amplifier and a second terminal coupled to a non-inverting input of the operational amplifier; and 3) a second resistor (R2) having a first terminal coupled to ~~an output of the operational amplifier~~ ground and a second terminal coupled to the non-inverting input of the operational amplifier, wherein the operational amplifier output comprises the comparator output.

Please replace the paragraphs bridging page 13, line 13 through page 15, line 5 of the specification with the following:

After the circuit reaches a steady state, assume that output voltage V(O) of the operational amplifier has just saturated at V(O) = V(SAT). Transistor 230 is in its active region if

$$V(SAT) - V(IN) \geq V(t),$$

where V(t) is the cut-in voltage of transistor 230. Transistor 220 is cut-off because its emitter terminal is at a higher voltage that its base terminal. As a result,

$$I(2) = [V(SAT)-V(t)-V(IN)]/R3$$

and I(1) = 0. Therefore, the current through capacitor C1 is:

$$I(C) = I(1) + I(2) = I(2).$$

The voltage V(C) across capacitor C1 rises linearly and is given by

$$V(C) = [I(2)/C1]t - \beta V(SAT)$$

$$= [[V(SAT)-V(t)-V(<<1>>IN)]/RC]t - \beta V(SAT),$$

where t denotes time.

When V(C) = V- = ßV(SAT) after time T1, the output V(O) changes to -V(SAT). Time T1 is computed as follows:

$$V(C)(T1) = \beta V(SAT)$$

$$[[V(SAT)-V(t)-V<<1>>(IN)]/R3C]T1 - \beta V(SAT) = \beta V(SAT)$$

$$T1 = [2\beta V(SAT)R3C]/[V(SAT)-V(t)-V(<<1>>IN)]. \quad (1)$$

After time T1, transistor 230 is cut-off because its base-emitter junction is reverse biased. However, transistor 220 is in its active region if

$$-V(SAT) + V(IN) \geq V(t).$$

As a result, I(2) = 0 and the current through the capacitor C1 is given by

$$I(C) = I(1) = [-V(SAT)+V(IN)+V(t)]/R3.$$

The voltage across capacitor C1 falls linearly and is given by:

$$V(C) = [I(C)/C1](t - T1) + \beta V(SAT);$$

$$= [[-V(SAT)+V(IN)+V(t)]/R3C1](t - T1) + \beta V(SAT).$$

At time t-T1 = T2, the capacitor C1 voltage V(C) = -ßV(SAT), and the output switches to +V(SAT), thereby starting a new cycle of oscillation. T2 is found as follows

$$V(C)(T1 + T2) = -\beta V(SAT)$$

$$[[-V(SAT)+V(IN)+V(t)]/R3C1]T2 + \beta V(SAT) = -\beta V(SAT)$$

$$T2 = [2\beta V(SAT)R3C1]/[V(SAT)-V(t)-V(IN)] \quad (2)$$

The frequency of oscillation, f, is defined as

$$f = 1/[T1 + T2] \quad (3)$$

Substituting Equations 1 and 2 in Equation 3, we obtain

$$f = [V(SAT)-V(t)-V(<<1>>IN)]/[4\beta V(SAT)R3C1] \quad (4)$$